

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective:			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 146301

May 17, 2016 9:56:57 AM

146301

Page 2

Item ID: D4785-115 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Rib Assembly
 Start Date: 5/17/2016 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 5/19/2016 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	QC5- Inspect part completeness to step on W/O	0.00							
110						4x		DAS 43	MAY 17 2016
QC	Memo	0.08						9-89	
Quality Control									
120	QC10- Inspect visual per QSI004- ground welds	0.00							
120						4x		DAS 43	MAY 17 2016
QC	Memo	0.00						9-89	
Quality Control									
130	Identify as per dwg & Stock Location: <i>WJA</i> <i>07</i>	0.00							
130						4x		DAS 43	MAY 17 2016
Packaging	Memo	0.04						9-89	
Packaging	LOCATION: WA004								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

Work Order ID 146301

May 17, 2016 9:56:57 AM

146301

Page 3

Item ID: D4785-115 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Rib Assembly
Start Date: 5/17/2016 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 5/19/2016 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.40							
Quality Control									

MCS MAY 17 2016

MCS MAY 17 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

Picklist Print

May 17, 2016 9:57:03 AM

Page 1

Work Order ID: 146301

146301

Parent Item: D4785-115

D4785-115

Parent Item Name: Rib Assembly

Start Date: 5/17/2016

Required Date: 5/19/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 13.03.14 NEW ISSUE VERF:JLM
13.06.21 DWG REV.B DD, VERF:JFS

IPP REV:B

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

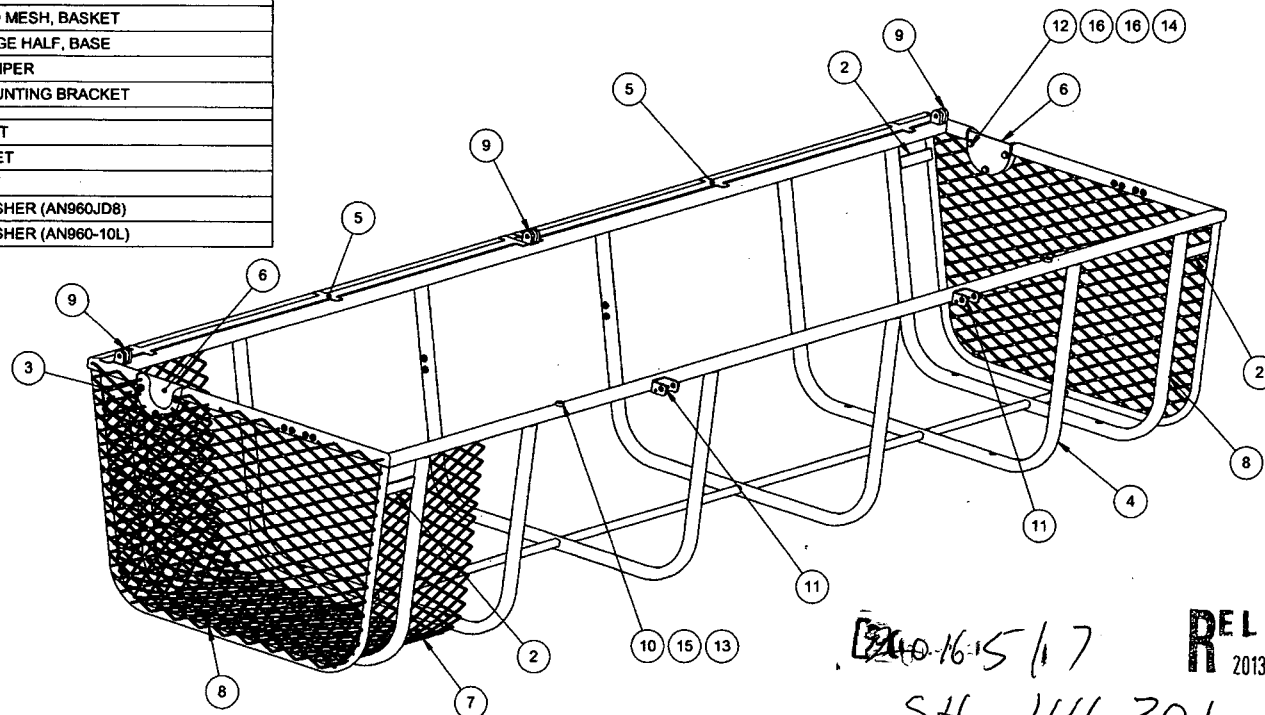
D3759-1		Manufactured	No				Each	222.0000		8			
D3759-1									**			MAY 17 2016	DAS 24 9-00
Bushing													

Location	Loc Qty	Loc Code
WA004	222	
141444	21	
145615	201	

D4306-1		Manufactured	No				Each	8.0000		4			
D4306-1									**			MAY 17 2016	DAS 24 9-00
Rib													

Location	Loc Qty	Loc Code
WA004	8	
145233	8	

ITEM NO.	QTY. -041	PART NUMBER	DESCRIPTION
1	X	D4785-041	LONG BASKET BASE ASSY, LH/RH
2	3	D4793-1	HANDLE PLATE
3	1	D4793-3	WIDE HANDLE PLATE
4	1	D4785-101	TUBULAR ASSEMBLY, LH/RH
5	2	D4672-1	BLANKING PLATE
6	2	D4021-5	BLANKING PLATE
7	1	D4020-1	MESH BASKET LONG, BASE
8	2	D4020-11	END MESH, BASKET
9	3	D4016-1	HINGE HALF, BASE
10	2	D2931	BUMPER
11	2	D2581	MOUNTING BRACKET
12	6	AN3-10A	BOLT
13	2	MS20800AD4W3	RIVET
14	6	MS21042L3	NUT
15	2	NAS1149DN832J	WASHER (AN960JD8)
16	12	NAS1149F0332P	WASHER (AN960-10L)



D4785-041 LONG BASKET BASE ASSY, LH/RH ⚠

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 50.42 lbs APPROX
- 8) INSTALL AFTER FINISH
- 9) MASK HOLES PRIOR TO POWDER COAT
- 10) WELD PER DART QSI 004

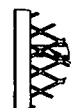
RELEASED
2013-06-20

SH 146301

B	REPLACE D3916-5 WITH D4785-117 (ZN B5-4, B4-4, B5-7); REVISE D4785-5 DIMENSION (ZN B5-5)	RF	13.06.11
A	NEW ISSUE	RF	13.05.24
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DC	DRAWING NO.	REV. B
MFG. APPR.	DS	D4785	SHEET 1 OF 7
APPROVED	TS	TITLE	SCALE
DE APPR.	TS	LONG BASKET BASE ASSY	NTS
DATE	13.06.11	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

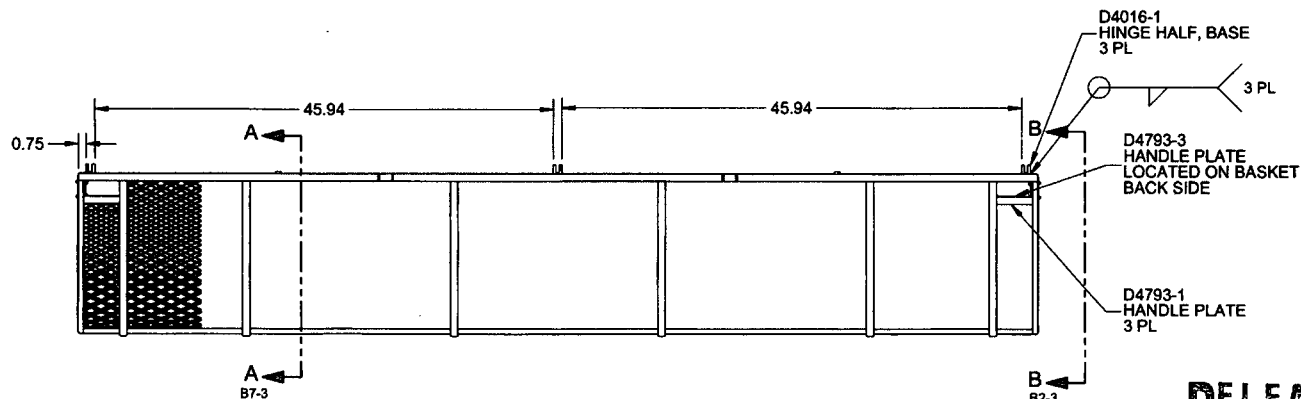
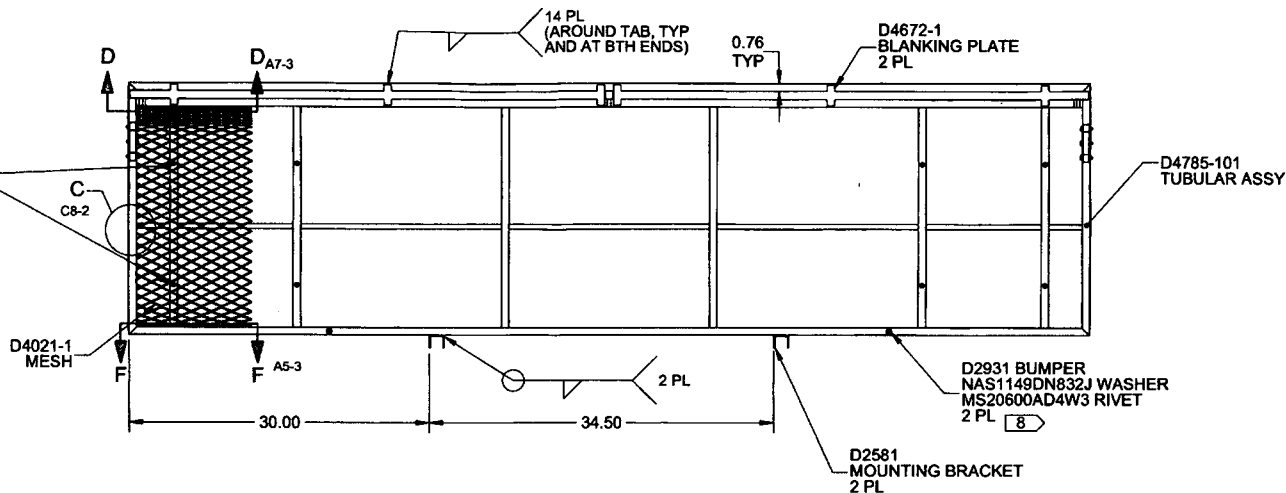
TRIM MESH LOCALLY
Ø0.50 - Ø0.60
TO CLEAR BUSHINGS
TYP

D4021-1
MESH



TACK WELD MESH
AT EVERY AVAILABLE
LOCATION

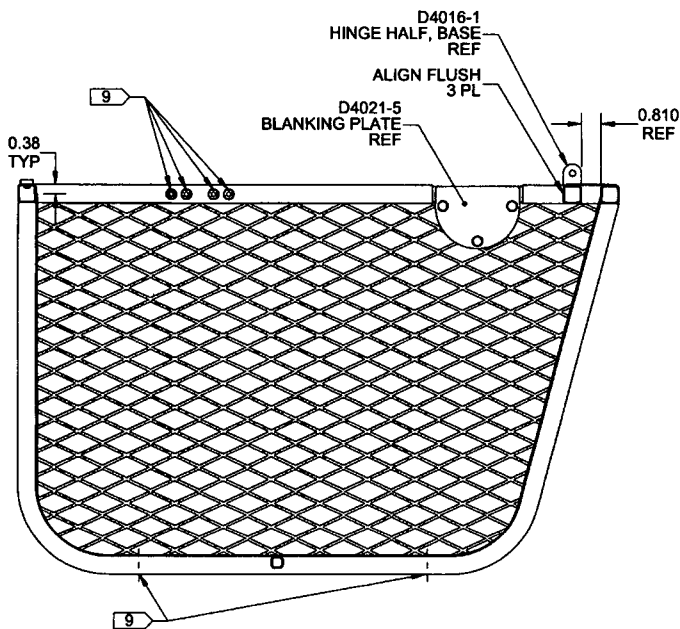
DETAIL C D7-2



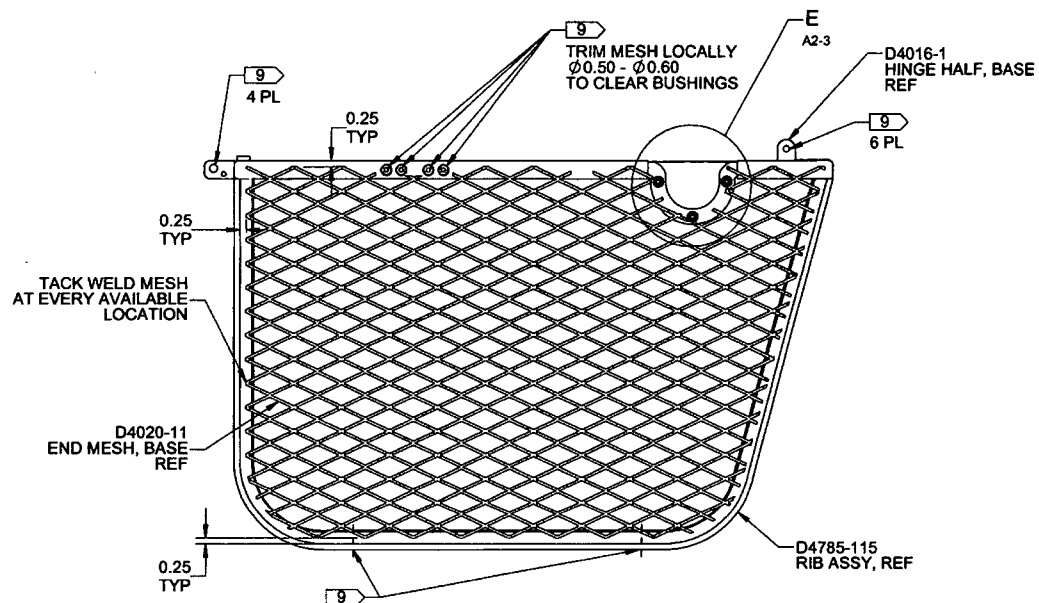
D4785-041 LONG BASKET BASE ASSY, LH/RH
(MESH SHOWN LOCALLY FOR CLARITY)

RELEASED
2013-06-20

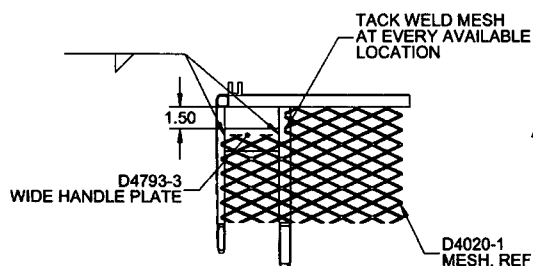
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	PC	DRAWING NO.	REV. B
MFG. APPR.	N	D4785	SHEET 2 OF 7
APPROVED	#	TITLE	SCALE
DE APPR.	#	LONG BASKET BASE ASSY	NTS
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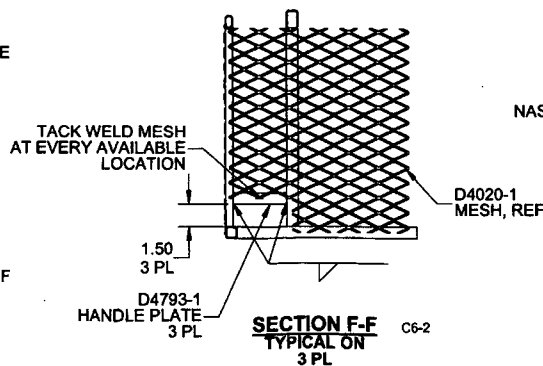
SECTION A-A B7-2



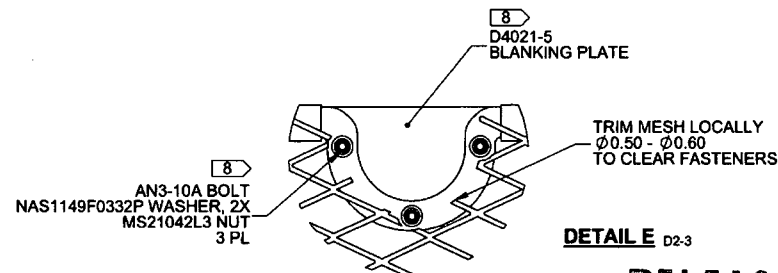
SECTION VIEW B-B A2-2



SECTION D-D D6-2



SECTION F-F C6-2
TYPICAL ON 3 PL

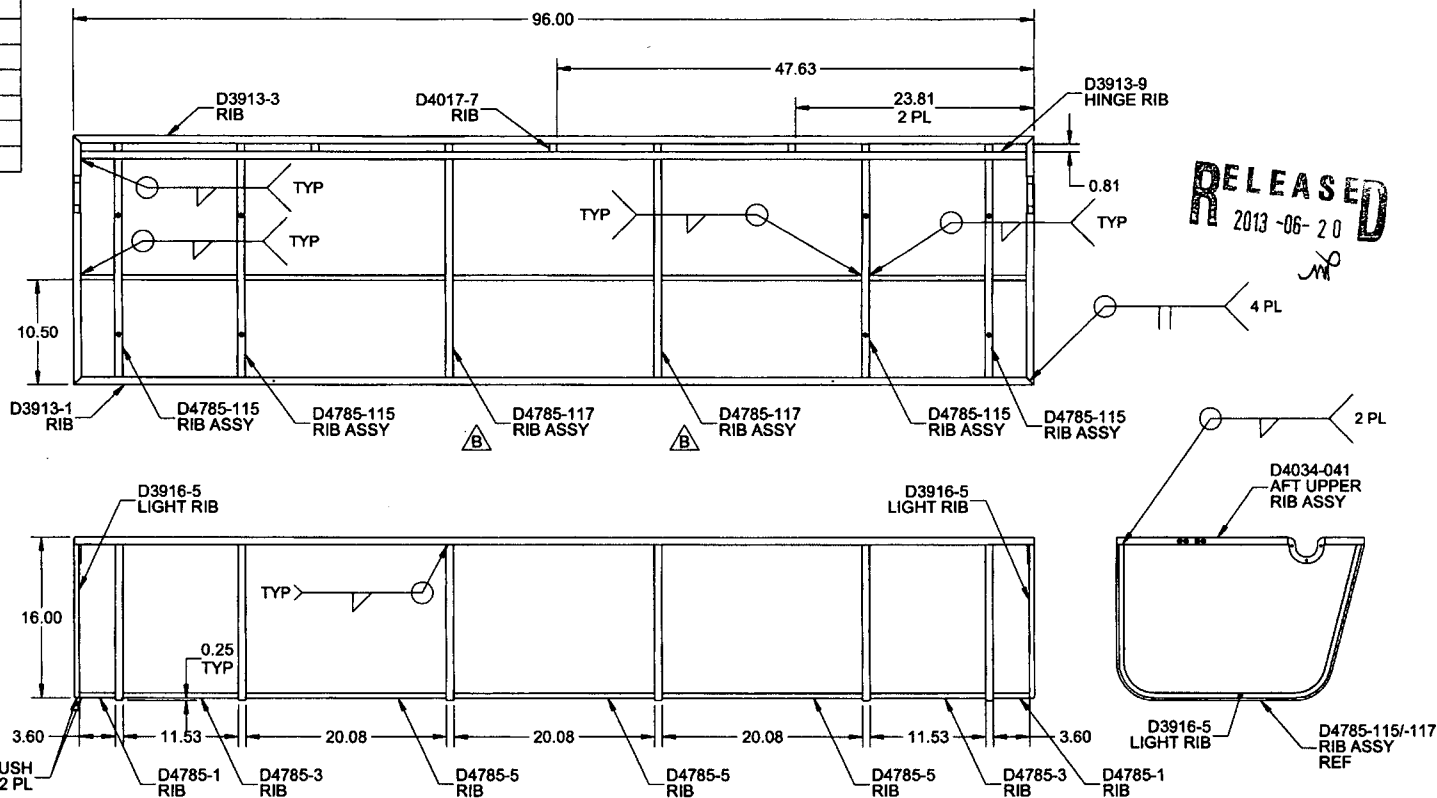


DETAIL E D2-3

RELEASED
2013-06-20

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PC	DRAWING NO. D4785	REV. B
MFG. APPR.	NS	SHEET 3 OF 7	
APPROVED	#	TITLE	SCALE
DE APPR.	#	LONG BASKET BASE ASSY	NTS
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ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	X	D4785-101	TUBULAR ASSEMBLY
2	2	D4785-1	RIB
3	3	D4785-5	RIB
4	4	D4785-115	RIB ASSEMBLY
5	2	D4785-117	RIB ASSEMBLY
6	2	D4785-3	RIB
7	3	D4017-7	RIB
8	1	D4034-041	AFT UPPER RIB ASSY
9	1	D4034-043	FWD UPPER RIB ASSY
10	2	D3916-5	RIB, LIGHT
11	1	D3913-1	RIB
12	1	D3913-3	RIB
13	1	D3913-9	HINGE RIB



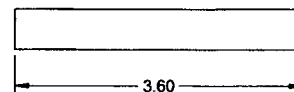
RELEASED
2013-06-20

NOTES:

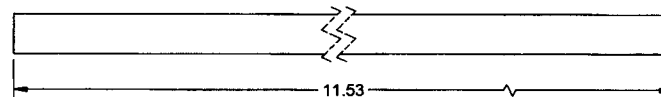
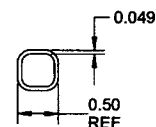
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 28.65 lbs
- 8) WELD PER DART QSI 004

D4785-101 TUBULAR ASSEMBLY, LH/RH

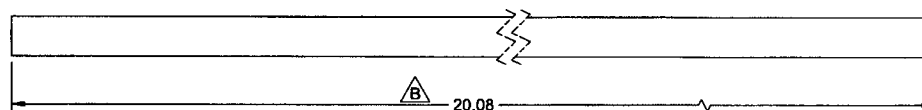
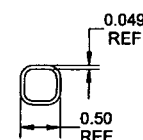
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DC	DRAWING NO.	REV. B
MFG. APPR.	DS	D4785	SHEET 4 OF 7
APPROVED	SA	TITLE	SCALE
DE APPR.	SA	LONG BASKET BASE ASSY	NTS
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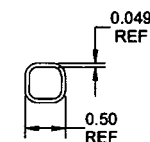
D4785-1 RIB



D4785-3 RIB



D4785-5 RIB



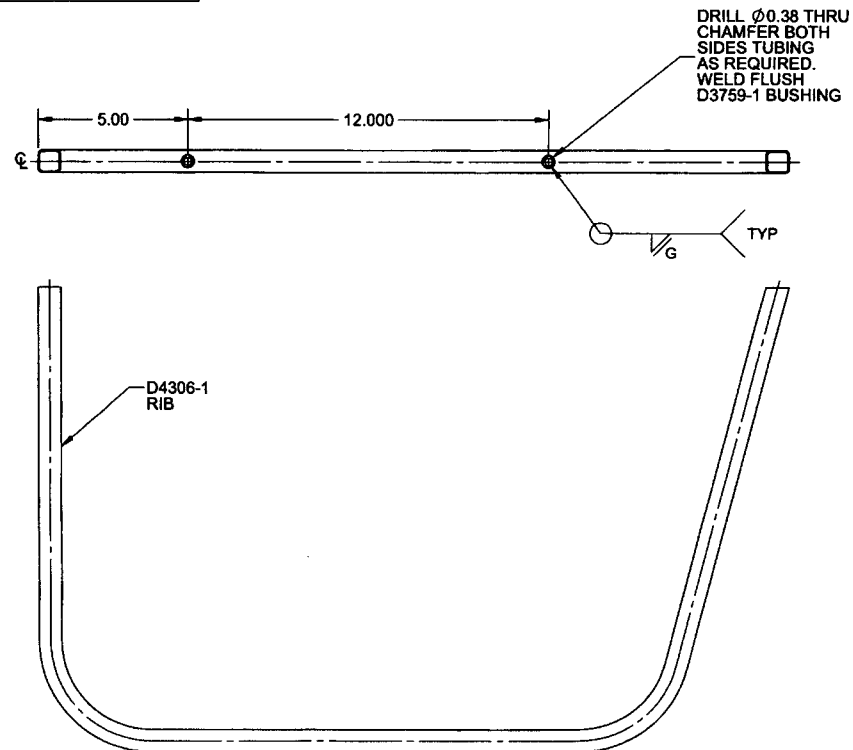
NOTES:

- 1) MATERIAL: AISI 304/316 SEAMLESS STAINLESS STEEL SQUARE TUBE, 0.50 x 0.50 x 0.049 WALL
PER ASTM A554 OR ASTM A269 MILL FINISH
REF DART SPEC. M304TS0.500W.049
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: SEE ASSEMBLED WEIGHTS

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	PC	DRAWING NO.	REV. B
MFG. APPR.	N	D4785	SHEET 5 OF 7
APPROVED	#	TITLE	SCALE
DE APPR.		LONG BASKET BASE ASSY	NTS
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RELEASED
2013-06-20
mt

ITEM NO.	QTY. -115	PART NUMBER	DESCRIPTION
1	X	D4785-115	RIB ASSEMBLY
2	1	D4306-1	RIB
3	2	D3759-1	BUSHING



D4785-115 RIB ASSEMBLY
MAKE FROM D4306-1 RIB

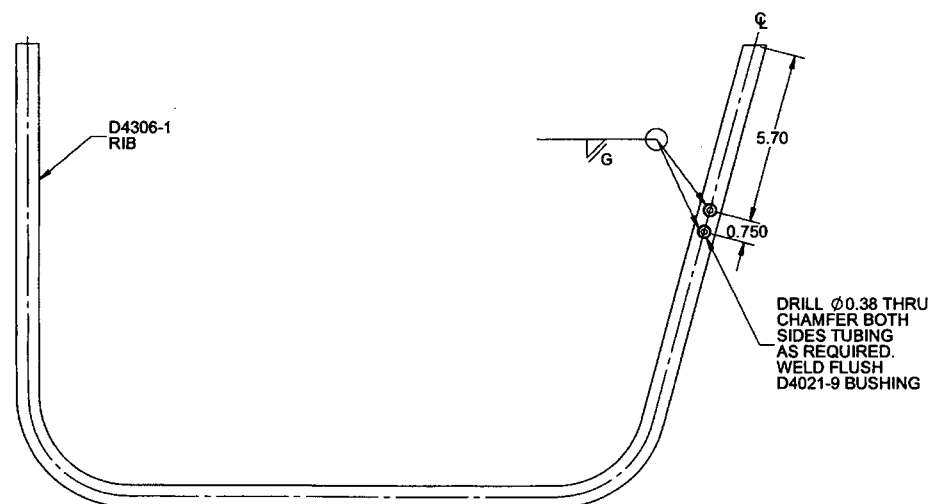
RELEASED
2013-06-20
JMD

NOTES:

- 1) MATERIAL: D4306-1 RIB
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.80 lbs
- 8) WELD PER DART QSI 004

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DC	DRAWING NO.	REV. B
MFG. APPR.	DC	D4785	SHEET 6 OF 7
APPROVED	DC	TITLE	SCALE
DE APPR.	DC	LONG BASKET BASE ASSY	NTS
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ITEM NO.	QTY. -117	PART NUMBER	DESCRIPTION
1	X	D4785-117	RIB ASSEMBLY
2	1	D4306-1	RIB
3	2	D4021-9	BUSHING



D4785-117 RIB ASSEMBLY
MAKE FROM D4306-1 RIB

NOTES:

- 1) MATERIAL: D4306-1 RIB
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.81 lbs
- 8) WELD PER DART QSI 004

RELEASED
2013-06-20

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D4785	SHEET 7 OF 7
APPROVED		TITLE	SCALE
DE APPR.		LONG BASKET BASE ASSY	NTS
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